REMARKS

This is in response to the Final Rejection of December 12, 2005. A Petition for a One-Month Extension of Time and a Request for Continued Examination along with the required fees are included.

The Applicant again request that the Examiner reconsider holding that what is clearly a ledger plate in the Evans Patent is a sickle knife. In the Evans Patent the part 6 is a ledger plate on a sickle guard. It does not reciprocate. It is fixed to a sickle guard. It is shown in the Evans drawings clearly as such, and is also described and identified in the Evans specification, on page 1, line 58-60, and also in the description of FIG. 4 and FIG. 5 of Evans, in the first column on page 1, lines 44-46. To allege that the Evans item 6 is a sickle knife, is wrong. Evans item 6 is not a sickle knife. It is a stationary part. A sickle knife reciprocates.

In any event, the Applicant has made changes to the specification found on the original disclosure and disclosed in FIG. 4, to identify the amount of concavity that is shown, and which has been represented in the Applicant's brochure for this knife as providing a substantial increase in feed area as compared to the standard straight knife sections with a three inch spacing as shown in the brochure. The proposed changes to FIG. 4 in red are to show the original disclosure supports the amendments made relating to the concavity as increase in the feed areas shown in the Applicant's recent brochure included herewith.

Also changes defining the length of the side edges of the base of the sickle knife as 40-50% of the overall length were incorporated into from original claim 3. The length of the base side edges relative to the overall length of the knife distinguishes this modern sickle knife section from the cited Schneider Patent.

The proposed changes to FIG. 4 and the related parts of specification are not new matter in as much as FIG. 4 shows this concavity, and the lines that have been added indicate the straight line 26A is about 4.5 centimeters, and the concave indicating line 26B is about .65 centimeters, giving a percentage of indentation or concavity in the range of 14%.

This is shown to be essentially the same as the illustrations in the Applicant's brochure.

The enclosed copy of a revised brochure emphasizes that the sickle knife sections described in the present claims reduce sickle weight, and this is a substantial advantage where one has a reciprocating elongated sickle knife with a number of these sickle knife sections on it, and which has to reciprocate rapidly in order to maintain a cutting speed. It is respectfully requested that the Examiner reconsider the holding that Evans has a knife section (6) that fulfills the language of claim 1. The Evans Patent does not have the disclosure or teaching of a concave edge on a reciprocating sickle knife section. The knife sections are indicated at 22 in the Evans Patent, and described on page 2, line 11. It can be seen that these knife sections or knifes are straight edge, not in any way suggesting or teaching a concave edge.

The rest of the references relied on by the Examiner likewise do not teach or suggest a knife that has an edge that is concave in the range and size specified, and disclose only conventional straight cutting edge knife sections or unworkable old knife sections.

In order to show the lack of suggestion of utilizing a concave cutting edge on a reciprocating sickle bar, where the mass of the sickle bar, and the increase in cutting area is of importance, the Evans Patent was dated July 7, 1896, and yet throughout the development of reciprocating sickle bars and knives for such sickles bars, there has not been a teaching of having a

smoothly concave cutting edge in the range indicated that will greatly increase the ability to feed crop through the cutting bar and into the harvester.

For example, the Isbell Patent is in 1983, and it had not come up with the concave cutting edge concept. The Schneider Patent cited, is even earlier than Evans, and was patented in December of 1869, and it too fails to show a knife that has a concave cutting line along the sides of a sickle knife section that has a base of modern dimensions and proportions to withstand loads on the base caused by reciprocating cutting.

The Schneider Patent 98,303, shows a rounded, outer end as shown in Schneider FIG. 4, and a substantially straight cutting line all the way back adjacent the base, but there is no indication of a concave cutting line that extends in a curve from the tip to a base side edge and which is effective for cutting all along the curved edge and wherein the base side edges are elongated in relation to the overall length.

The Schneider Patent is not constructed in the manner of a modern high capacity, high volume, fast reciprocating sickle knife. The Schneider sickle knife has very thin side wings which extend laterally outwardly from the end of the effective cutting edge. The wings are along lines that are generally perpendicular to a center bisecting plane of the knife. The differentiation from the Schneider knife in the claims is accomplished in two ways. In claim 1, the recitation of the side edges of the base as being between 40% and 50% of the length from the base end edge to the leading end of the knife is defined. This provides for a sturdy sickle knife that will not break, and which has an effective cutting edge that is a larger portion of the length of that edge than in the Schneider Patent by a substantial amount. The second way is in claim 14 that has the definition of the cutting edge intersecting the curved side edges before the cutting edge is parallel to the base edge. This again is a definition of

a modern knife that operates in connection with sickle guards and is supported on the bottom side with ledger plates.

It is respectfully submitted that the Schneider Patent fails to teach this type of construction, in that the knives in the Schneider Patent are not provided with the sturdy base portions defined and are not supported on ledger plates. As can be seen in FIG. 2, of Schneider, the tip only of the knife section will pass into a groove that is also shown in the lower portion or side view of FIG. 3 where this little groove "J" is illustrated. It means that the knife section in the Schneider Patent is essentially unsupported for a substantial amount of its travel, and further the grain or crop material that the side edges of the Schneider knife section would engage would tend to be wedged into the opening that is shown in the side view of FIG. 3 between the letters "H" and "G". There is no slicing action of a cutting edge passing over a ledger plate, much like a scissors or cutting implement, that would be at an angle to the ledger plate edge.

In other words, the Schneider Patent does not provide a knife section that is operable to provide high cutting capacity. Crop material would be bent over by the edges of the knife section as it approached the guard fingers shown in Schneider and would tend to plug, as well as do an inefficient job of cutting, and perhaps not cut a substantial portion of the standing stalks that it encounters. Further, the present claims call for the knife sections to be in a continuous curve from the leading end out to the junction between the cutting line and the side edge of the base of the knife. This continuous curve is in an operable portion of the knife, and is defined in a manner that is related to the present day sickle knife construction.

Claim 14, ties in the knife section construction on an assembly of a sickle bar with a plurality of the knife sections, side by side, and with the base edges of one knife being adjacent the base edges of another knife. It includes the structure of

claim 1 and is believed allowable.

Claim 15 recites the sickle knife in combination, and used in combination with sickle guards that support the knife sections as the knife reciprocates. As shown in the present drawings, and in particular attention is drawn to FIG. 3, the sickle guards that are shown have support fingers that support the bottom of the sickle knife sections and which are spaced approximately one half of the distance between the side edges of the base of the sickle knife sections. This is shown in FIG. 3 in an underside view where the center support finger 25 is in the middle of the sickle knife section that is also shown in FIG. 2 in a top view. The finger 25 is hidden in FIG. 2.

This spacing of one half the width of the base of knife sections provides mating edges to enhance the cutting and provide a way of taking advantage of the increase in the feed area that is shown in the Applicant's brochure for their King Cut knives.

The provision of a cutting edge that continuously moves away from the center plane of the knife section from a first end of the cutting line adjacent the leading end to a second end of the cutting line when the knife has a substantial base section and the curved cutting edge is in a region of the sickle knife to provide efficient cutting. The recited concavity from a straight line between the ends of the cutting edge is such that it will greatly increase the feed area between adjacent knife sections.

It is thus believed that the claims remaining in the case define non-obvious invention over the references, and favorable action is respectfully submitted.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

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